SBC81202VG

Intel® PentiumD/Pentium4/Celeron D
PICMG 1.0 Single Board Computer

User's Manual

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ESD Precautions

Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:

- Do not remove boards or integrated circuits from their anti-static packaging until you are ready to install them.
- Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This helps to discharge any static electricity on your body.
- Wear a wrist-grounding strap, available from most electronic component stores, when handling boards and components.

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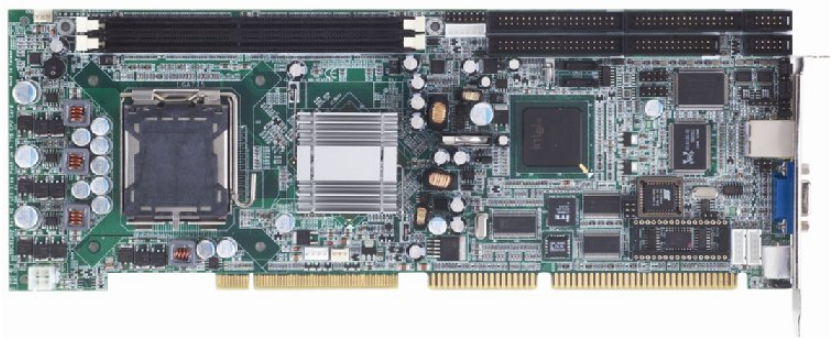
Chapter 1 Introduction

1.1 General Description



The SBC81202VG PICMG 1.0 Single Board Computer delivers new features for interactive application and many other embedded computing solutions requiring higher performance.it support two 184-pin DDR DIMM sockets and support the maximum memory capacity could up to 2GB .VGA function with Intel® Extreme Graphic Technology is built into the Intel® 865G chipset and the board has a maximum video memory of up to 64MB, which is shared by the system memory.so it is perfect platform for all of application

1.2 Specifications

- **Processor**: Intel® Pentium D/Pentium4/Celeron
- **North Bridge:** Intel® 82865G
- **South Bridge:** Intel® 82801EB(ICH5)
- **CPU Socket:** LGA775
- **FSB**: 533/800 Mhz
- **L2 Cache:** Integrated in CPU

Pentium D = 2M x 2/Pentium 4 = 1M or 2M/Celeron D = 256K or 512K

- **BIOS:** Phoenix AwardBIOS Rev.6.00
- **System Memory:** Support DDR266/333/400 memory and the maximum capacity up to 2GB.

CPU FSB	DDR Type	DDR Frequency
800MHz	PC3200/PC2700/PC2100	400/333*/266MHz
533MHz	PC2700/PC2100	333/266MHz

*Because limited of chipset, when using FSB800Mhz CPU, PC2700 DDR (333Mhz) only support 320Mhz.

- **IDE Interface:** Two IDE connector and up to four devices, Ultra DMA 100 supported
- **FDD Interface:** Supports up to 2 drives
- **Serial Ports:** Two 16550 UARTs ports with 16 byte as two RS232.
- **Parallel Ports:** One parallel port with ECP/EPP/SPP supported
- **VGA Controller:**
- Chipset Integrated VGA Controller and Supports up to 2048x1536 at 75 Hz resolution on non-interlaced CRT monitors
- **Ethernet:** Realtek 8100S
- **SATAI:** Two Channel and support the maximum data transfer rate could up to 150MB/s
- **USB Interface:** 4 USB ports; USB Spec. Rev. 2.0 compliant.

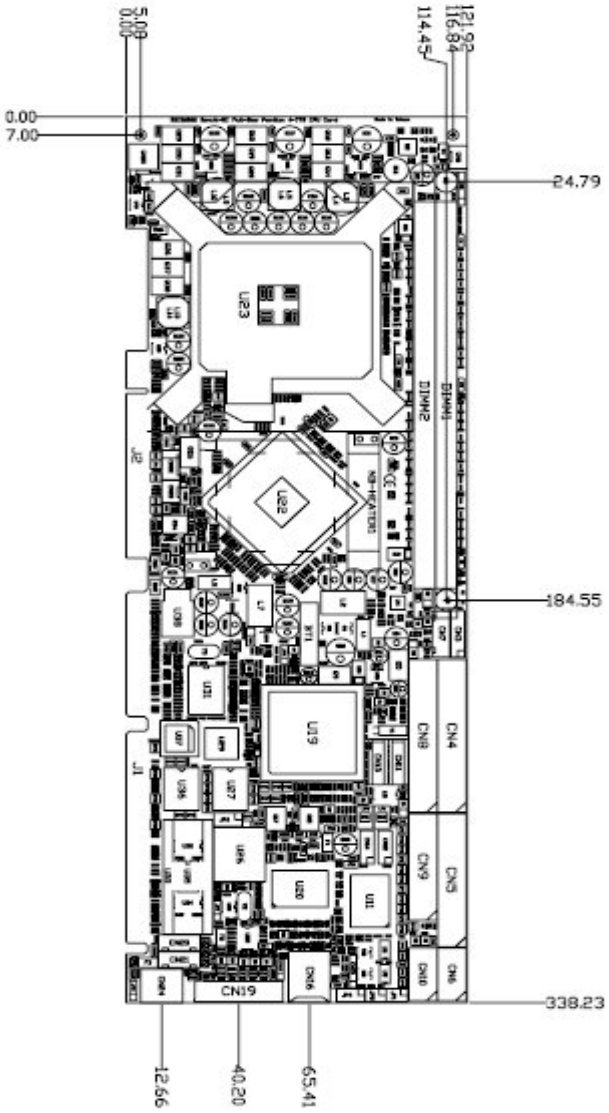
- **Hardware Monitoring:** Winbond W83627HG-AW detection of CPU temperature, System temperature, Power failure and Fan speed.
- **Watchdog Timer:**
  - Software programmable time interval and hardware reset only.
  - 255 level, 1~255 seconds
- **Dimensions:**338 mmx122mm(6 Layer)

NOTE: Specifications are subject to change without notice.

1.3 Utilities Supported

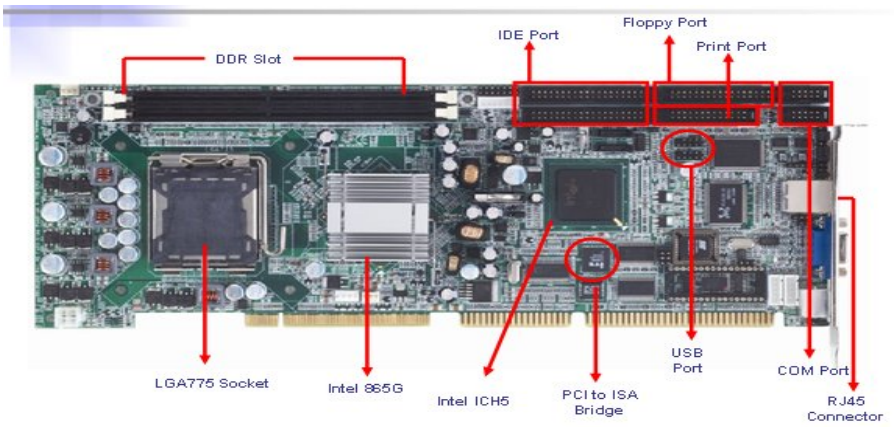
- Intel® 865G Utility and Drivers
- Ethernet Utility and Drivers
- VGA Drivers

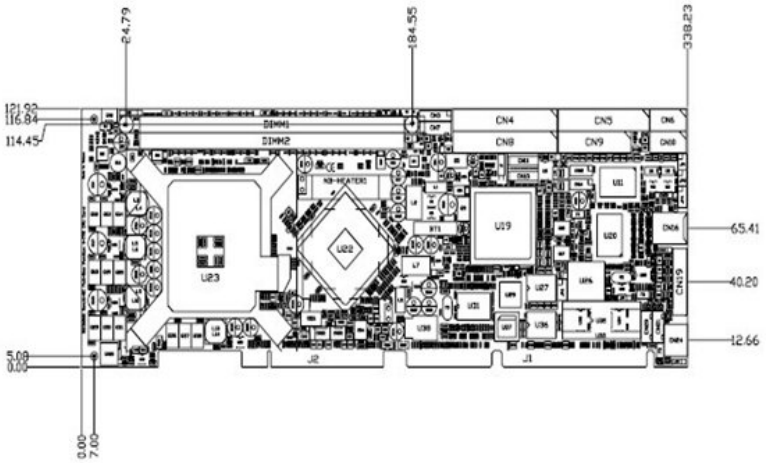
1.4 Board Dimensions



Chapter 2 Jumpers and Connectors

2.1 Board Layout





2.2 Jumper Settings

Fllowed as below detailed description for Jumper setting and installed the SBC81202 on your application

Jumper	Description
JP1	RS232 Setting
JP2	
JP4	
JP5	Clear CMOS Setting
JP6	Disk On Chip Setting
JP7	Watchdog Trigger Mode
JP8	External Keyboard Wake up

2.2.1 COM2 RS232 Settings: JP1, JP2,JP4

COM2	JP1	JP2	JP4
RS-232 (Default)	Short 3-5,4-6	Short 3-5,4-6	Short 1-2,7-8

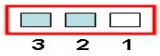
2.2.2 Clear CMOS Setting: JP5

	Options	Settings
	Normal	1-2(Default)
	Clear CMOS	2-3

2.2.3 Disk on Chip Setting: JP6

Options	Settings
D0000-D1FFF	Short 1-2(Default)
D2000-D3FFF	3-4
D4000-D5FFF	5-6
D6000-D7FFF	7-8

2.2.4 Watchdog Tigger Mode: JP7

	Options	Settings
	NMI	1-2
	RESET	2-3
	Disabled	Open (Default)

2.2.5 External KB Wake up: JP8

	Options	Settings
	Normal	1-2(Default)
	Enabled	2-3

2.3 Connectors

The connectors allow the CPU card to connect with other parts of the system. Some problems encountered by your system may be a result from loose or improper connections. Ensure that all connectors are in place and firmly attached. The following table lists the function of each connector on the SBC81202.

Connectors	Label	Connectors	Label
General Output Connector	CN3	Primary IDE Connector	CN8
Printer Port Connector	CN9	Secondary IDE Connector	CN4
COM1	CN6	DiskOnChip® Socket	U33
COM2	CN10	S-ATA Port 1 Connector	CN13
USB Port 1, 2 Connector	CN12	S-ATA Port 2 Connector	CN11
USB Port 3, 4 Connector	CN14	FDD Connector	CN5
System BIOS	U26	IrDA Connector	CN15
CRT Connector	CN19	LGA775 CPU Socket	U23
Keyboard/Mouse Connector	CN24	CPU FAN Connector	CN22
External Mouse Connector	CN20	SYSTEM FAN1 Connector	CN23
External Keyboard Connector	CN21	SYSTEM FAN2 Connector	CN2
Ethernet Connector 1	CN16	Internal Buzzer	BU1
Ethernet External Speed LED	CN17	Internal Battery	BT1
Ethernet External Link/ACT LED	CN18	ATX SB5V Power Connector	CN7
184-Pin DDR Memory Channel-A	DIMM2	ATX12V CPU Power Connector	CN25
184-Pin DDR Memory Channel-B	DIMM1		

Chapter 3 Installation

Before installing the processor, Please pay moe attention on Intel website and obtained more information

http://www.intel.com.

3.1 CPU Installation

The LGA775 processor socket come with a lever to protect the processor.Please pay more attention as below.Follow the pictures and place the processor into CPU socket.

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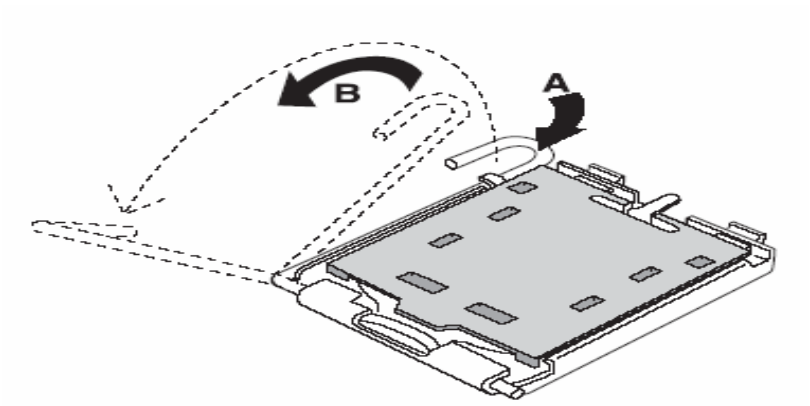

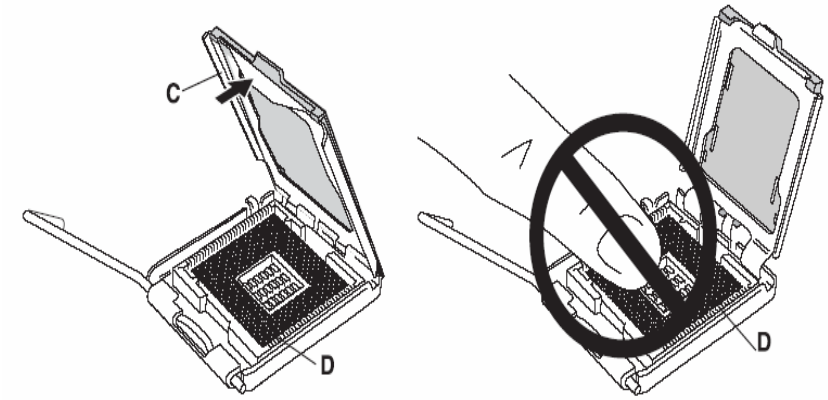
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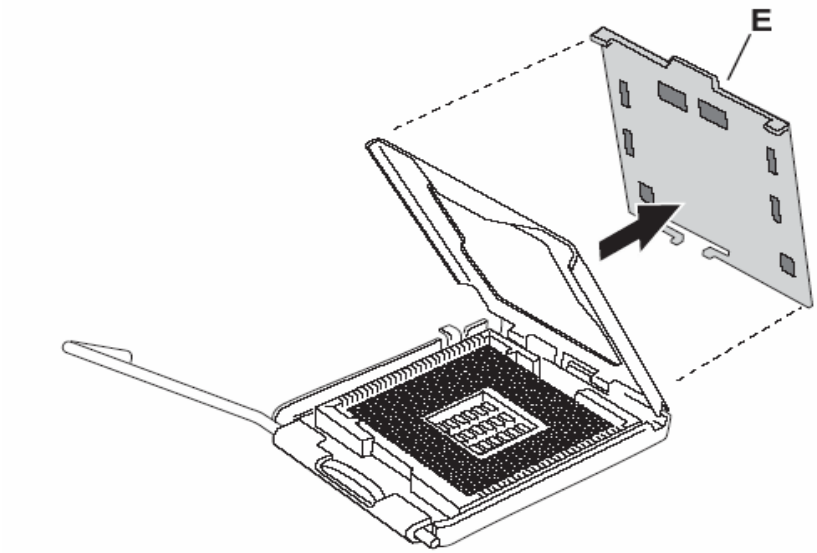
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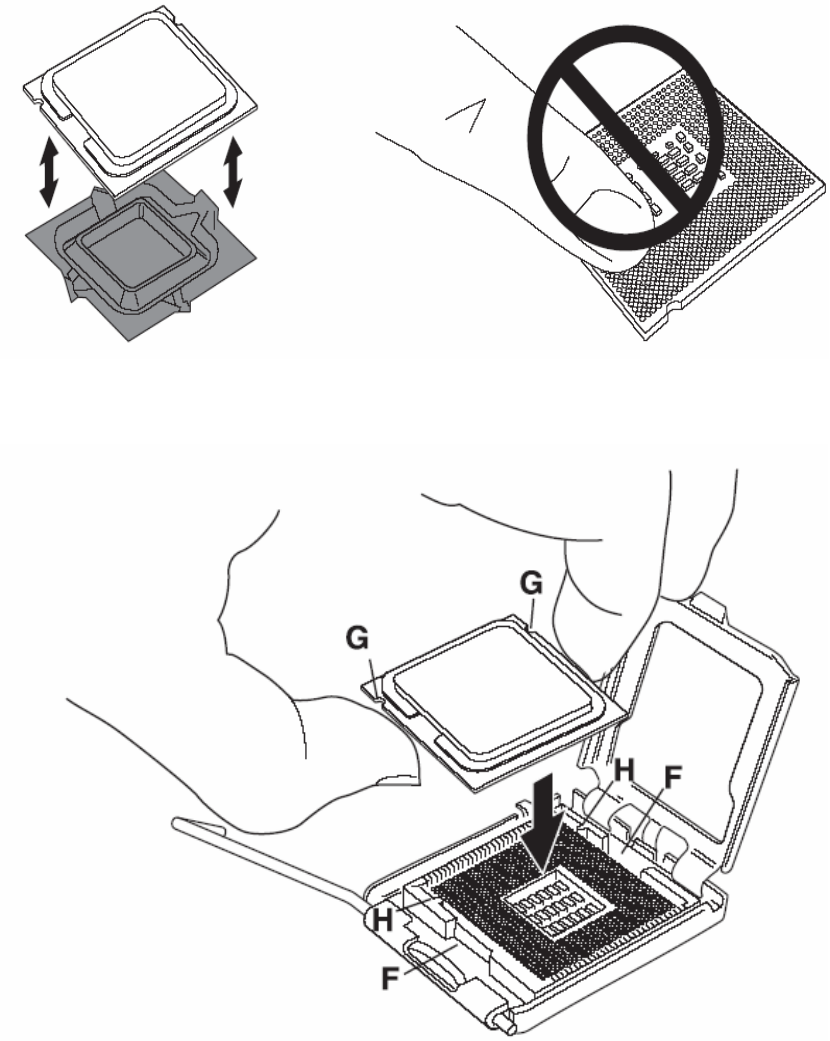
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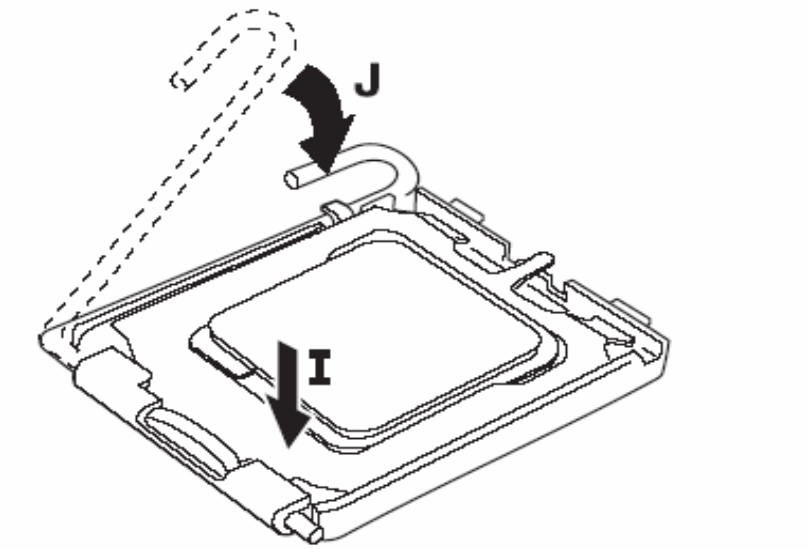
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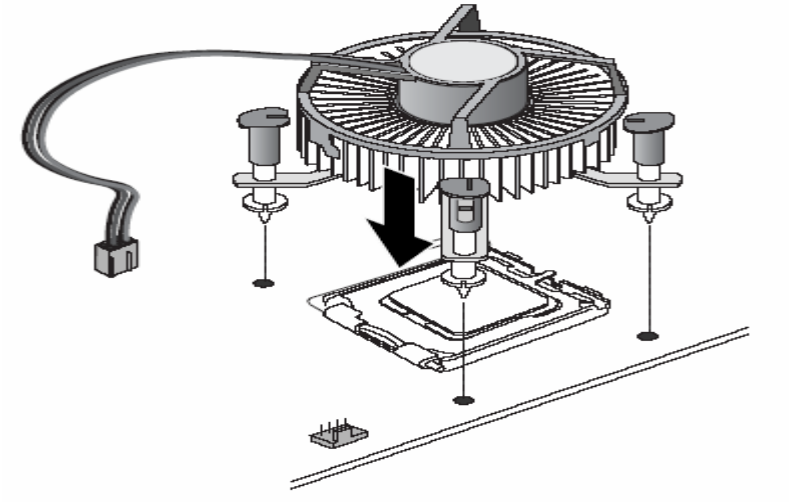

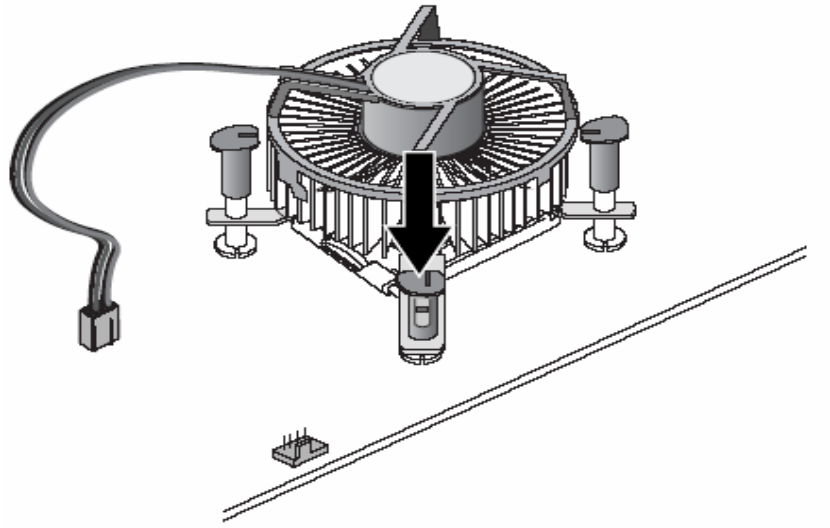

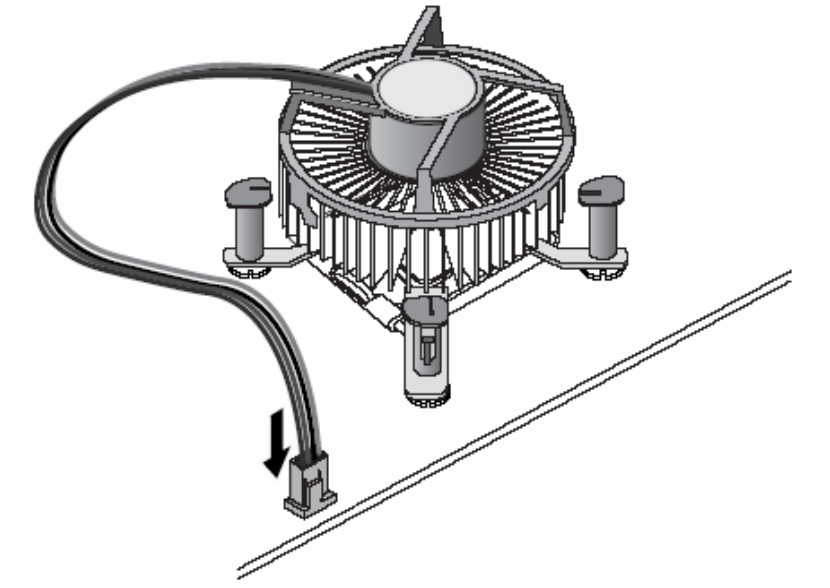

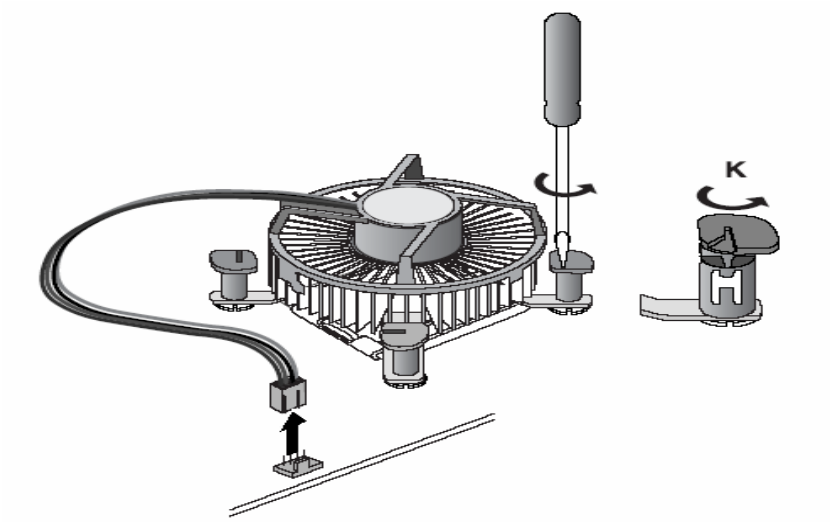
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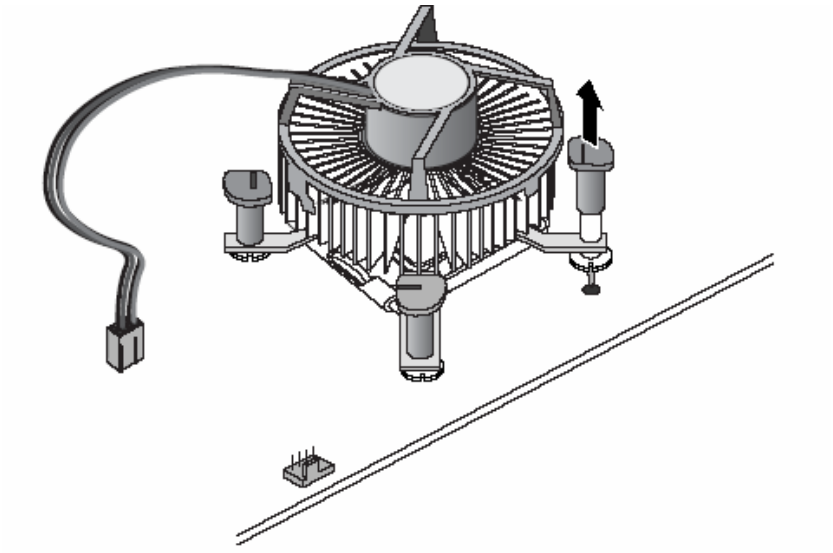

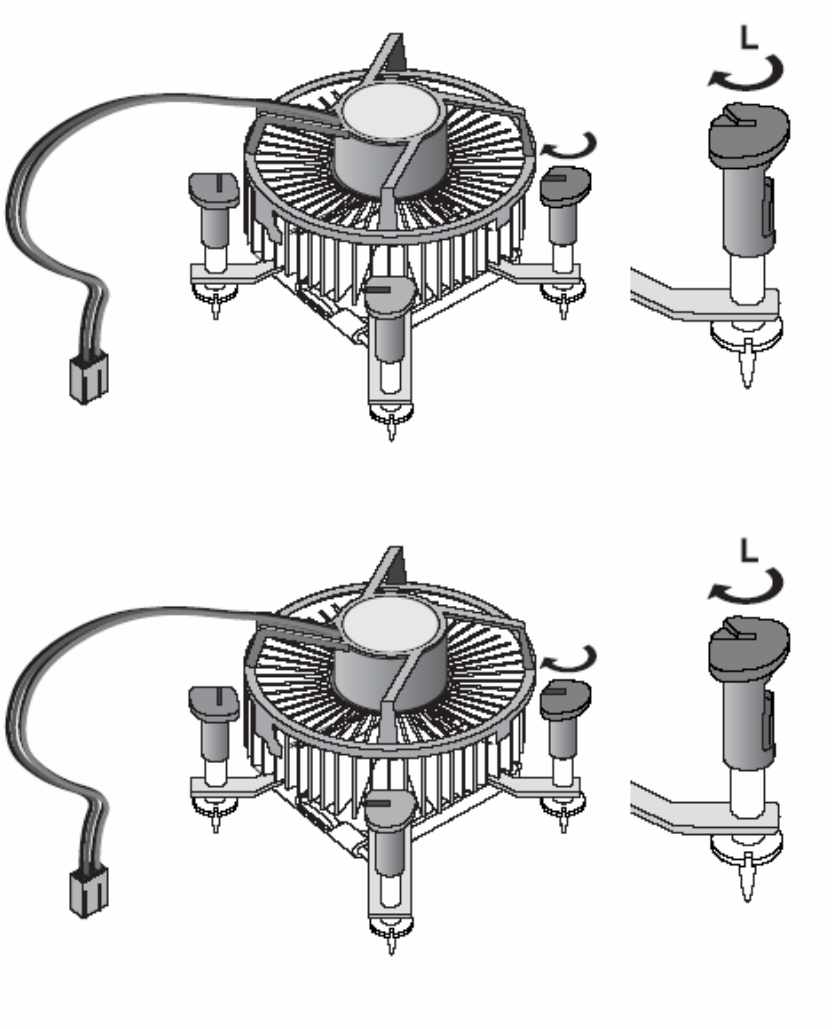
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3.2 Installing ATX Power Supply

System power is provided to the SBC81202 Single Board Computer by CN25

3.3 Installing the Memory

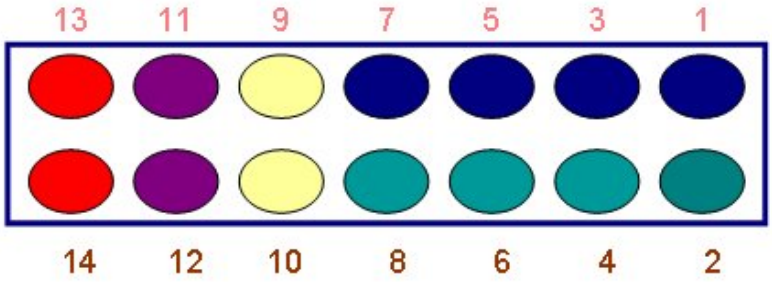
The **SBC81202 support DDR memory and** support the maximum memory capacity could up to 2**GB**.**If you want to know what is difference between DDR and DDR2.See below picture**

PS: SBC81202 only support Un-Buffered DIMM and could not support ECC/Registered DIMM

Chapter 4 Hardware Description

This chapter provided detailed information for all of hardware features for **SBC81202** all-in-one LGA775 CPU card.

4.1 General Output Connector:CN3



Power LED

Defined by Pins 1, 3, 5, 7 connects the system power LED indicator to its respective switch on the case. Pin 1 is +, and pin 5 is assigned as -.Pin 7 is defined as NC

External Speaker and Internal Buzzer Connector

Pins 2, 4, 6, 8 connect to the case-mounted speaker unit or internal buzzer.

Hareware Reset

Pins 11 & 12 was designed for Hardware Reset.

HDD Activity LED

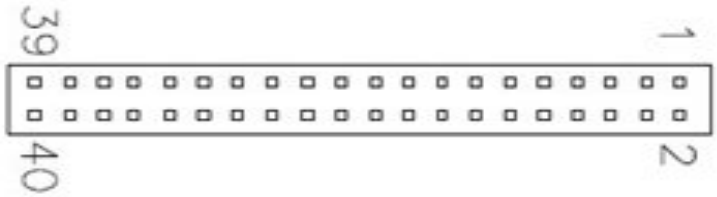
This connector extends to the hard drive activity LED on the control panel. This LED will flash when the HDD is being accessed. Pins 13 & 14 connect the hard disk drive and the front panel HDD LED.

Power Botton

This 2-pin connector was designed at Pin9/10

4.2 Enhane IDE interface connecotor-CN4 and CN8

The **SBC81202** provided two IDE Port and support the maximum IDE devices could up to four **IDE devices.**



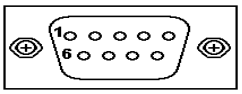
Pin	Description	Pin	Description	Pin	Description
1	Reset #	2	GND	3	Data 7
4	Data 8	5	Data 6	6	Data 9
7	Data 5	8	Data 10	9	Data 4
10	Data 11	11	Data 3	12	Data 12
13	Data 2	14	Data 13	15	Data 1
16	Data 14	17	Data 0	18	Data 16
19	GND	20	N/C	21	N/C
22	GND	23	IOW #	24	GND
25	IOR #	26	GND	27	IOCHRDY
28	N/C	29	N/C	30	GND-Default
31	Interrupt	32	N/C	33	SA1
34	N/C	35	SA0	36	SA2
37	HDC CS0 #	38	HDC CSI #	39	HDD Active #

40	GND				

.

4.3 Display interface-CN19

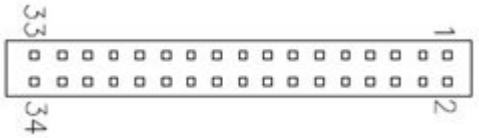
The GMCH provides interfaces to a progressive scan analog monitor and DVO can drive a variety of DVOdevices• The GMCH has an integrated 350 MHz RAMDAC that can directly drive a progressive scananalog monitor up to a resolution of 2048x1536 at 75 Hz.



Pin	Signal	Pin	Signal	Pin	Signal
1	Red	2	Green	3	Blue
4	N/A	5	GND	6	AGND
7	AGND	8	AGND	9	+5V
10	GND	11	N/A	12	DDC DAT
13	Horizomtal Sync	14	Vertical Sync	15	DDC CLK

4.4 Floppy Disck Connector-CN5

The **SBC81202** provides a 34-pin header type connector, **CN5**, supporting up to two floppy drives. The floppy drives may be any one of the following types: 5.25" 360KB/1.2MB and 3.5" 720KB/1.44MB/2.88MB.



Pin	Description	Pin	Description	Pin	Description
1	GND	2	Reduce write Current	3	GND
4	N/C	5	GND	6	N/C
7	GND	8	Index #	9	GND
10	Motor enable A #	11	GND	12	Drive Select B #
13	GND	14	Drive select A #	15	GND
16	Motor enable B #	17	GND	18	Direction #
19	GND	20	STEP #	21	GND
22	Write data #	23	GND	24	Write gate #
25	GND	26	Track #	27	GND
28	Write protect #	29	GND	30	Read data #
31	GND	32	Side 1 select #	33	GND
34	Disk change #				

.

4.5 Parallel Port Interface:CN9

The **CN9** is a multi-mode parallel port able to support:

- **Standard mode:** IBM PC/XT, PC/AT and PS/2™ compatible with bi-directional parallel port
- **Enhanced mode:** Enhance parallel port (EPP) compatible with EPP 1.7 and EPP 1.9 (IEEE 1284 compliant)
- **High speed mode:** Microsoft and Hewlett Packard extended capabilities port (ECP) IEEE 1284 compliant

The address select of the onboard parallel port in LPT1 (3BCH) or disabled is done by BIOS CMOS setup.

Pin	Description	Pin	Description

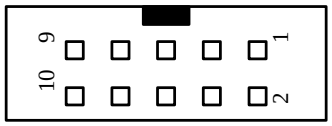
1	Strobe #	14	Auto Form Feed #
2	Data 0	15	Error #
3	Data 1	16	Initialize #
4	Data 2	17	Printer Select In #
5	Data 3	18	GND
6	Data 4	19	GND
7	Data 5	20	GND
8	Data 6	21	GND
9	Data 7	22	GND
10	Acknowledge #	23	GND
11	Busy	24	GND
12	Paper Empty #	25	GND
13	Printer Select	26	

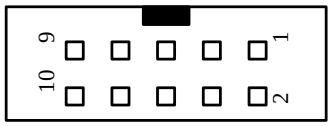
4.6 Serial Port Interface

The serial interface for **SBC81202** consists of COM1 port (**CN6**) and COM2 (**CN10**) supports RS-232

		RS-232
1	1	Data Carrier Delect(DCD)
2	6	Data Set Ready(DSR)
3	2	Receive Date(RXD)
4	7	Request to Send(RTS)
5	3	Transmit Data(TXD)
6	8	Clear to Send(CTS)
7	4	Data Terminal Ready

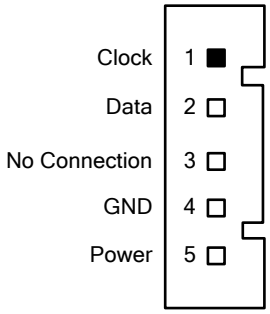
		(DTR)
8	9	Ring Indicator(RI)
9	5	GND
10	X	NC



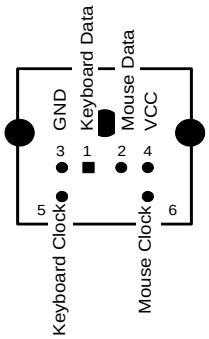


4.8 Keyboard and PS/2 Mouse Connectors

The **SBC81202** provides a keyboard **(CN21)** and Mouse **(CN20)** interface with two 5-pin connectors.

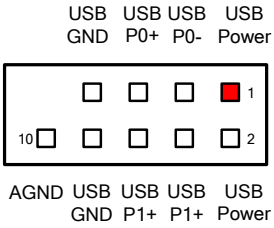


4.9 Mini-Din Connecter



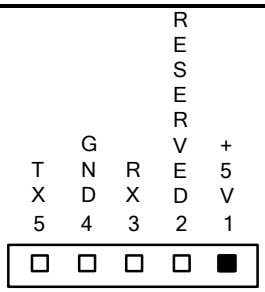
4.10 USB Connector

The Universal Serial Bus (USB) connector was used for the USB interface. **CN12/CN14** is the 9-pin USB connector on the **SBC81202**.



4.11 IrDA Connector

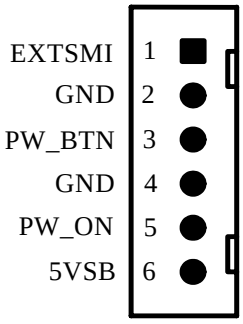
CN15 is a 5-pin IrDA connector for wireless communication.



4.12 5VSB Power Connector Connector

The interface enables and supports reliable power anagement through improved hardware and operating system coordination. The specification enables new power management technology to evolve independently in operating systems and hardware while ensuring that they continue to work together.

CN7 on the **SBC81202** is a 6-pin header connector that provides **ATX 5V Standby Power**.



4.13 ATX12V CPU Power Connector: CN25

This connector connected to an ATX12V power supply and used for CPU Core Voltage.

Important Note: Make sure your ATX12V power supply can provide 16A on the +12V lead and at least 1A on the +5V standby lead (+5VSB). The minimum recommended wattage is 250W or

300W for a fully configured system. The system may become unstable and may experience difficulty powering up if the power supply is inadequate.

Chapter 5 Installing VGA driver

5.1 Introduction

The GMCH provides interfaces to a progressive scan analog monitor.

- The GMCH has an integrated 350 MHz RAMDAC that can directly drive a progressive scananalog monitor up to a resolution of 2048x1536 at 75 Hz.

5.2 Driver Disks' Contents

The driver diskettes that come with the **SBC81202 Series** package contains the following installation programs:

- Win2000 driver
- WinXP driver

5.3 Windows 2000 VGA Driver Installation

To install or upgrade the DirectX driver

Microsoft DirectX 8.0a must be installed prior to installing the video driver support on the **SBC81202 Series**.

If you've installed a retail version of Windows 2000 you'll need to install Microsoft DirectX 8.0a. This file can be download from

http://www.microsoft.com/windows/directx/default.asp

To install video support

If you have installed retail Windows you need to install the video driver. The driver is contained in the \SBC81202\Drivers\VGA subdirectory on the dirvers CD.

To install or upgrade the Intel 865G video driver:

1. Run SETUP.EXE from the driver directory on your drivers CD
2. Follow the onscreen directions to complete installation.
3. There may be messages about the driver not having a digital signature, select Yes to all these message boxes.
4. Upon successful completion you will be asked to reboot your computer, choose “Yes, I want to restart my computer now” if you have no other drivers to install. Otherwise, choose “No, I will restart my computer later” and continue to next step.

5.4 Windows XP VGA Driver Installation

To install video support

If you have installed retail Windows you need to install the video driver. The driver is contained in the \SBC81202\Drivers\VGA subdirectory on the dirvers CD.

To install or upgrade the video driver:

1. Run SETUP.EXE from the video driver directory.
2. Follow the onscreen directions to complete the installation.
3. At the end you will be asked to reboot the PC. Choose YES and press FINISH to exit the video driver installation.

Chapter 6 Installing LAN Driver

6.1 Introduction

The **SBC81202** was built-in high performance Plug and Play Ethernet interface which is fully compliant with the IEEE 802.3 standard, and consisting of the RJ-45 connector

6.2 Features

- 10/100/1000BASE-T Triple-speed MAC
- PCI host interface
- Standards compliant WOL

6.3 Drivers Supported

The onboard LAN Chip **for SBC81202** Ethernet interface allows great flexibility to work with all major networking operating systems including Windows 2000, XP, Linux 2.2, 2.4, Netware, Solaris x86 and UNIX.

NOTE: you begin the driver software installation, please see the detailed installation procedure from the Product Information CD-ROM and be sure to make installation and backup copies of the driver files.

Chapter 7 Award BIOS Utility

Please pay more time and check all of detailed information for BIOS settings available in the Award BIOS that comes with the **SBC81202** CPU card. 7.1 BIOS Introduction

The Award BIOS (Basic Input/Output System) installed in your computer system's ROM supports Intel Celeron processors in a standard IBM-AT compatible I/O system. The BIOS provides critical low-level support for standard devices such as disk drives, serial and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

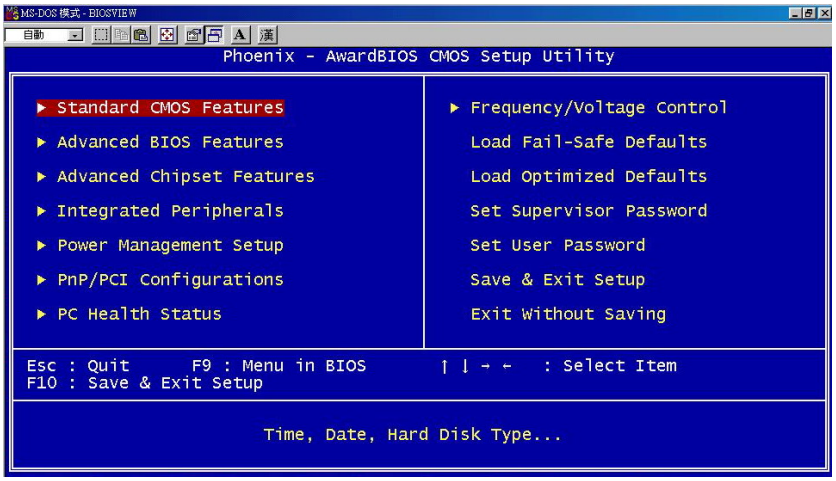
7.1 BIOS Setup

The Award BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn ON the computer, the Award BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system OFF and back ON again. The following message will appear on the screen:

Press <DEL> to Enter Setup

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.



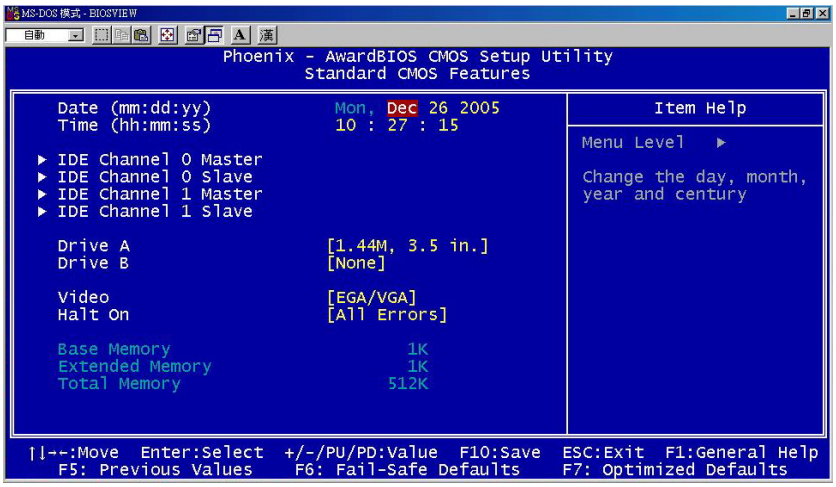
The section below the setup items of the Main Menu displays the control keys for this menu. Another section located at the bottom of the Main Menu, just below the control keys section, displays information on the currently highlighted item in the list.

NOTE: If you find that your computer cannot boot after making and saving system changes with Setup, the Award BIOS, via its built-in override feature, resets your system to the CMOS default settings.

We strongly recommend that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and your system manufacturer to provide the absolute maximum performance and reliability.

7.2 Standard CMOS Setup

"Standard CMOS Setup" allows you to record some basic hardware configurations in your computer system and set the system clock and error handling. If the motherboard is already installed in a working system, you will not need to select this option. You will need to run the Standard CMOS option, however, if you change your system hardware configurations, the onboard battery fails, or the configuration stored in the CMOS memory was lost or damaged.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
Standard CMOS Features
Date (mm:dd:yy) Mon, Dec 26 2005
Time (hh:mm:ss) 10 : 27 : 15
IDE Channel 0 Master
IDE Channel 0 Slave
IDE Channel 1 Master
IDE Channel 1 Slave
Drive A [1.44M, 3.5 in.]
Drive B [None]
Video [EGA/VGA]
Halt On [All Errors]
Base Memory 1K
Extended Memory 1K
Total Memory 512K
Item Help
Menu Level ▶
Change the day, month, year and century
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

At the bottom of the menu are the control keys for use on this menu. If you need any help in each item field, you can press the <F1> key. It will display the relevant information to help you. The memory display at the lower right-hand side of the menu is read-only. It will adjust automatically according to the memory changed. The following pages describe each item of this menu.

- **Date**
  The date format is <day>, <month>,<date>, <year>. Press <F3> to show the calendar.

day	The day of week, from Sun to Sat, determined by the BIOS, is read only
date	The date, from 1 to 31 (or the maximum allowed in the month), can key in the numerical / function key
month	The month, Jan through Dec.
year	The year, depends on the year of BIOS

- **Time**
  The time format is <hour> <minute> <second> accepting either function key or numerical key. The time is calculated based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

- **IDE Channel 0 Master/IDE Channel 0 Slave/IDE Channel 1 Master/IDE Channel 1 Slave**
  The categories identify the types of one channel that have been installed in the computer. There are 45 predefined types and 2 user definable types are for Enhanced IDE BIOS. Type 1 to Type 45 are predefined. Type User is user-definable.
  Press <PgUp>/<+> or <PgDn>/<–> to select a numbered hard disk type or type the number and press <Enter>. Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information within this category. If your hard disk drive type does not match or is not listed, you can use Type User to define your own drive type manually.
  If you select Type User, related information is asked to be entered to the following items. Enter the information directly from the keyboard and press <Enter>. This information should be provided in the documentation from your hard disk vendor or the system manufacturer.
  If the controller of HDD interface is ESDI, select “Type 1”.
  If the controller of HDD interface is SCSI, select “None”.
  If the controller of HDD interface is CD-ROM, select “None”.

CYLS.	number of cylinders	LANDZONE	landing zone
HEADS	number of heads	SECTORS	number of sectors
PRECOMP	write precom	MODE	HDD access mode

  If there is no hard disk drive installed, select NONE and press <Enter>.

- **Drive A type/Drive B type**
  The category identifies the types of floppy disk drive A or drive B installed in the computer.

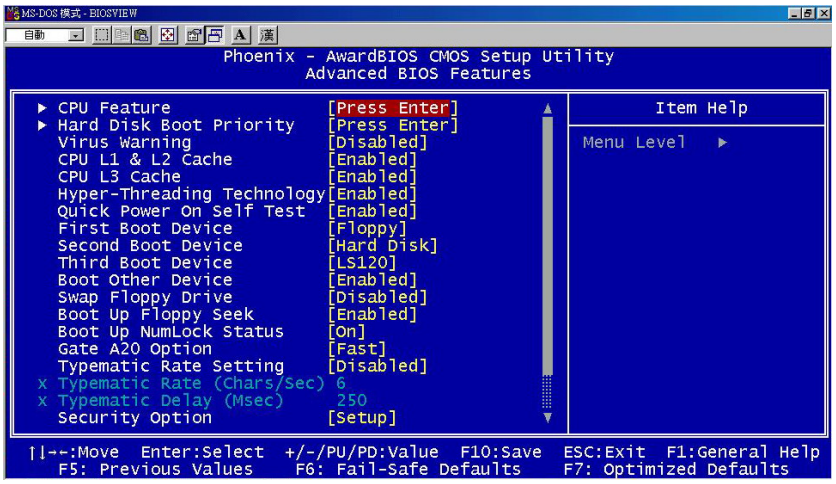
None	No floppy drive installed
360K, 5.25 in	5.25 inch PC-type standard drive; 360Kb capacity
1.2M, 5.25 in	5.25 inch AT-type high-density drive; 1.2MB capacity
720K, 3.5 in	3.5 inch double-sided drive; 720Kb capacity
1.44M, 3.5 in	3.5 inch double-sided drive; 1.44MB capacity
2.88M, 3.5 in	3.5 inch double-sided drive; 2.88MB capacity

- **Halt On**
  This field determines whether the system will halt if an error is detected during power up.

No errors	The system boot will halt on any error detected.
All errors	Whenever the BIOS detects a non-fatal error, the system will stop and you will be prompted.(Default)
All, But Keyboard	The system boot will not stop for a keyboard error; it will stop for all other errors.
All, But Diskette	The system boot will not stop for a disk error; it will stop for all other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk error; it will stop for all other errors.

7.3 Advanced BIOS Features

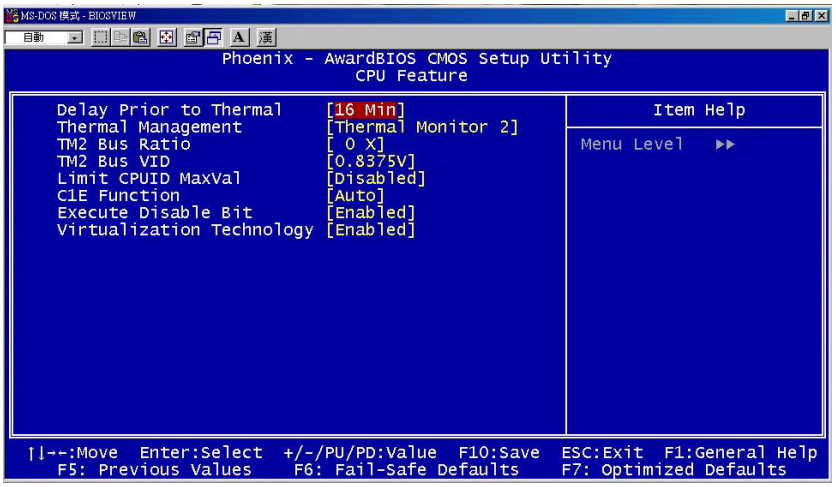
This section allows you to configure and improve your system and allows you to set up some system features according to your preference.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
Advanced BIOS Features
▶ CPU Feature [Press Enter]
▶ Hard Disk Boot Priority [Press Enter]
Virus Warning [Disabled]
CPU L1 & L2 Cache [Enabled]
CPU L3 Cache [Enabled]
Hyper-Threading Technology [Enabled]
Quick Power On Self Test [Enabled]
First Boot Device [Floppy]
Second Boot Device [Hard Disk]
Third Boot Device [LS120]
Boot Other Device [Enabled]
Swap Floppy Drive [Disabled]
Boot Up Floppy Seek [Enabled]
Boot Up NumLock Status [On]
Gate A20 Option [Fast]
Typematic Rate Setting [Disabled]
x Typematic Rate (Chars/Sec) 6
x Typematic Delay (Msec) 250
Security Option [Setup]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

7.3.1 CPU Feature

Clicks the cursor to this fild and press <Enter>. The following screen

Will be appeared.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
CPU Feature
Delay Prior to Thermal [16 Min]
Thermal Management [Thermal Monitor 2]
TM2 Bus Ratio [0 X]
TM2 Bus VID [0.8375V]
Limit CPUID MaxVal [Disabled]
C1E Function [Auto]
Execute Disable Bit [Enabled]
Virtualization Technology [Enabled]
Item Help
Menu Level ▶▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

The setting on the screen are for reference only. Your version may not be identical to this one.

- **Delay prior to Thermal**
  This filed is used to select the time that would force the CPU to a 50% duty cycle when it excedds uts maximum operating temperature therefore protecting the CPU and the system board From overtheating to ensure a safe computing environment.

- **Thermal Management**
  Thermal Monitor 1 On-die throtting
  Thermal Monitor 2 Ratio and VID transition

- **TM2 Bus Ratio**
  This field is used to select the frequency (Bus Ratio) of the throttled performance state that will be initiated when the on-die sensor turns from cool to hot.

- **TM2 Bus VID**
  This field is used to select the voltage of the throttled performance state that will be initiated when the on-die sensor Turns form cool to hot.

- **Limite CUPID MaxVal**
  The CPUID instruction if some newer CPUs will return a value greater than 3. The default is Disabled because this problem does not exist in the Windows series operating systems. If you are using an operating system other than Windows, this problem

May occur. To avoid this problem, enable this field to limit the return value to 3 or lesser than 3.

7.3.2 Hard Disk Boot Priority

This field is used to select the boot sequence of the hard drives. Move the cursor to this field then press <Enter>. Use the Up or Down arrow keys to select a device then press<+> to move it up or <-> to move it down the list.

- **Virus Warning**
  This item protects the boot sector and partition table of your hard disk against accidental modifications. If an attempt is made, the BIOS will halt the system and display a warning message. If this occurs, you can either allow the operation to continue or run an anti-virus program to locate and remove the problem.

  NOTE:Many disk diagnostic programs, which attempt to access the boot sector table, can cause the virus warning. If you will run such a program, disable the Virus Warning feature.

- **CPU L1 & L2 Cache**
  These fields speed up the memory access. The default value is enabled. Enable the external cache for better performance.

- **CPU L3 Cache**
  This field is used to enable or disable the CPU's L3 cache.

- **Hyper-Threading Technology(For Intel Pentium 4 Processor with Hyper-Threading Technology only)**
  This field is used to enable the functionality of the Intel Pentium 4 Processor with Hyper-Threading Technology and will appear only when using this processor.

- **Quick Power On Self Test**
  This option speeds up Power On Self Test (POST) after you turn on the system power. If set as Enabled, BIOS will shorten or skip some check items during POST. The default setting is *"Enabled"*.

Enabled	Enable Quick POST
Disabled	Normal POST

- **First/Second/Third Boot Device**
  These items allow the selection of the 1st, 2nd, and 3rd devices that the system will search for during its boot-up sequence. The wide range of selection includes Floppy, LS120, ZIP100, HDD0~3, SCSI, and CDROM.

- **Boot Other Device**
  This item allows the user to enable/disable the boot device not listed on the First/Second/Third boot devices option above. The default setting is ***Enabled***.

- Swap Floppy Drive
  This allows you to determine whether to enable Swap Floppy Drive or not. When enabled, the BIOS swaps floppy drive assignments so that Drive A becomes Drive B, and Drive B becomes Drive A. By default, this field is set to ***Disabled.***

- **Boot Up Floppy Seek**
  During POST, BIOS will determine the floppy disk drive type, 40 or 80 tracks, installed in the system. 360Kb type is 40 tracks while 720Kb, 1.2MB and 1.44MB are all 80 tracks. The default value is *"Enabled"*.

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks.
Disabled	BIOS will not search for the type of floppy disk drive by track number. There will be no warning message displayed if the drive installed is 360K.

- **Boot Up NumLock Status**
  This option enables and disables the numberlock function of the keypad. The default value is *"On"*.

On	Keypad functions confine with numbers
Off	Keypad functions convert to special functions (i.e., left/right arrow keys)

- **Gate A20 Option**
  This entry allows you to select how gate A20 is handled. Gate A20 is a dveice used to address memory above 1 Mbyte. Initially. gate A20 was handled via the keyboard controller. Today, while keyboard still provide this support, it is more common and much faster for the system chipset to provide support for gate A20.

- **Tyematic Rate Setting**
  Disabled Contiunally holding down a key on your keyboard will cause the BIOS to report that the key is down.

  Enabled The BIOS will not only report that the key is down, but Will first wait for a moment and if the key is still down it will begin to report that the key has been depressed repeatedly. For example you would use such a feature to accelerate cursor movements with the arrow keys. You can then select the typematic rate and typematic delay in the " Tyematic Rate (Chars/Sec) " and " Typematic Delay (Msec) " field below.

- **Typematic Rate (Chars/Sec)**
  This field allows you to select the rate at which the keys are accelerated.
- **Typematic Delay(Msec)**
  This field allows you to select the delay between when the key was first depressed and when the acceleration begins.
- **Security Option**
  This item allows you to limit access to the system and Setup, or just to Setup. The default value is *"Setup"*.

System	The system will not boot and access to Setup will be denied if the incorrect password is entered at the prompt.
Setup	The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt.

NOTE:To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything, just press <Enter> and it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.

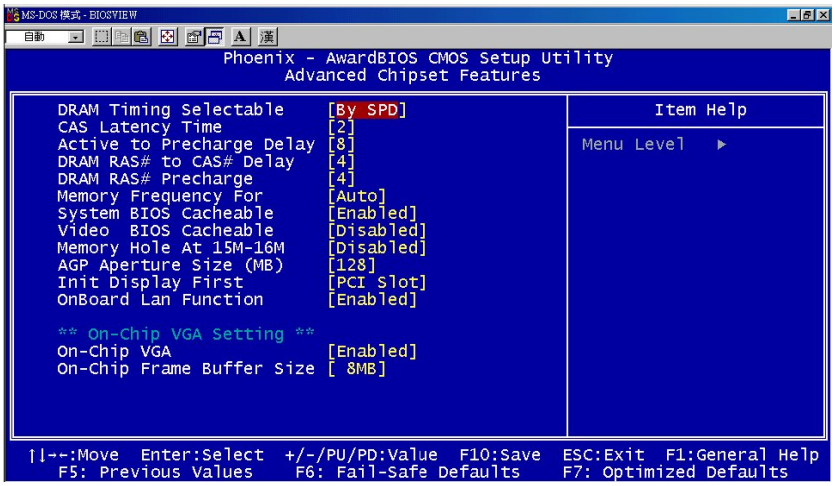
- **APIC Mode**
  Leave this field in its default setting.
- **MPS Version Control for OS**
  This field is used to select the MPS version that the system board is using.

- **OS Select for DRAM >64MB**
  This field allows you to access the memory that is over 64MB in OS/2.

- **Small Logo(EPA) Show**
  Enabled The EPA logo will appear during system boot up.
  Disabled The EPA logo will not appear during system boot-up.

7.4 Advanced Chipset Features

Since the features in this section are related to the chipset on the CPU board and are completely optimized, you are not recommended to change the default settings in this setup table unless you are well oriented with the chipset features.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
Advanced Chipset Features
DRAM Timing Selectable [By SPD]
CAS Latency Time [2]
Active to Precharge Delay [8]
DRAM RAS# to CAS# Delay [4]
DRAM RAS# Precharge [4]
Memory Frequency For [Auto]
System BIOS Cacheable [Enabled]
Video BIOS Cacheable [Disabled]
Memory Hole At 15M-16M [Disabled]
AGP Aperture Size (MB) [128]
Init Display First [PCI Slot]
OnBoard Lan Function [Enabled]
** On-Chip VGA Setting **
On-Chip VGA [Enabled]
On-Chip Frame Buffer Size [8MB]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **DARM Timing Selectable**

  This field is used to select the timing of the DRAM.

  By SPD The EEPROM on a DIMM has SPD (Serial Presence Detect) data structure that stores information about the module such as the memory type,memory size, memory speed etc. When this option is selected the system will run according to the information in the EEPROM. This option is the default setting because it provides the most stable condition for the system. The " CAS Latency Time " to " System Memory Frequency " field will show the default settings by SPD.

Manual If you want better performance for your system other than the one " by SPD " select " Manual " then select the best option in the " CAS Latency Time " to " System Memory Frequency " fields.

- **CAS Latency Time**
  This field is used to select the latency between the DRAM read command and the time that the data was received
- **DRAM RAS# to CAS# Delay**
  This field is used to select the latency between the DRAM active Command and read/write command.
- **DRAM RAS# Precharge**
  This field is used to select the idle clocks after issuing a precharge command to the DRAM.
- **Precharge Delay**
  The options are Auto, 4,5,6,7,8,9,10,11,12,13,14 and 15.
- **Memory Frequency for**
  This field is used to select the memory clock speed of DIMM.
- **System BIOS Cacheable**
  When this field is enabled, accesses to the system BIOS ROM address at F0000H-FFFFFH are cached, provide that the cache controller is enabled.
- **Video BIOS Cacheable**
  As with caching the system BIOS, enabling the Video BIOS cache will allow access to video BIOS addressed at C0000H to be cached if the cache controller is also enabled. The larger the range of the Cache RAM, the faster the video performance.
- **Memory Hole At 15M-16M**
  You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it can't be Cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

- **AGP Aperture Size (MB)**
  This field determines the effective size of the Graphic Aperture used for a particular GMCH configuration. It can be updated by the GMCH-specific BIOS configuration sequence before the PCI standard bus enumeration sequence takes place. If it is not updated then a default value will select an aperture of maximum size.

- **Init Display First**
  This item allows you to decide to active whether PCI Slot or on-chip VGA first.
- **On-Board LAN function**
  This item allows you to Disabled or Enabled onboard LAN

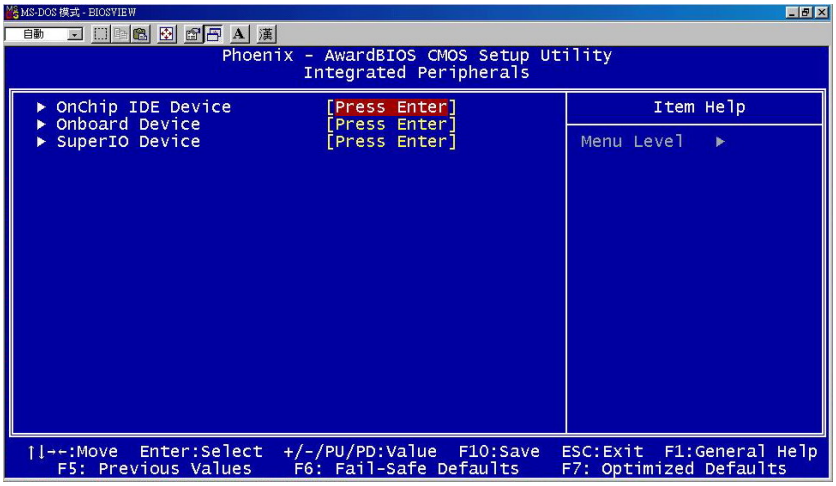
- **On-Chip VGA Setting**

➢ **On-Chip VGA**
  - This item allows to Disabled or enabled onboard VGA

➢ **On-Board Frame Buffer Size**
  - This item allows to adjust the Frame Buffer Size

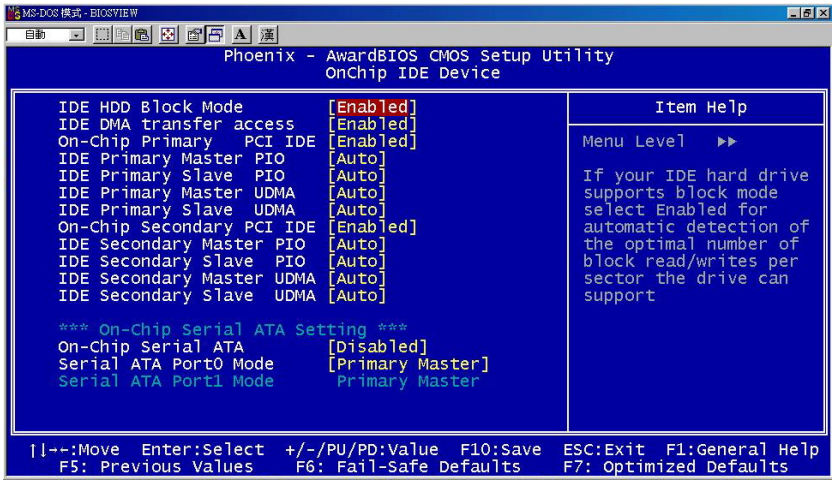
7.5 Integrated Peripherals

This option sets your hard disk configuration, mode and port.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
Integrated Peripherals
▶ OnChip IDE Device [Press Enter]
▶ Onboard Device [Press Enter]
▶ SuperIO Device [Press Enter]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

7.5.1 On-Chip IDE Device

Move the cursor to this field and press <Enter>. The following screen will be appeared.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
OnChip IDE Device
IDE HDD Block Mode [Enabled]
IDE DMA transfer access [Enabled]
On-Chip Primary PCI IDE [Enabled]
IDE Primary Master PIO [Auto]
IDE Primary Slave PIO [Auto]
IDE Primary Master UDMA [Auto]
IDE Primary Slave UDMA [Auto]
On-Chip Secondary PCI IDE [Enabled]
IDE Secondary Master PIO [Auto]
IDE Secondary Slave PIO [Auto]
IDE Secondary Master UDMA [Auto]
IDE Secondary Slave UDMA [Auto]
*** On-Chip Serial ATA Setting ***
On-Chip Serial ATA [Disabled]
Serial ATA Port0 Mode [Primary Master]
Serial ATA Port1 Mode Primary Master
Item Help
Menu Level ▶▶
If your IDE hard drive supports block mode select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **IDE HDD Block Mode**
  Enabled The IDE HDD uses the block mode. The system BIOS will check the hard disk drive for the maximum block size the system can transfer. The block size will depend on the type of hard disk drive.

  Disabled The IDE HDD uses the standare mode.

- **IDE DMA Transfer Access**
  This field when Enabled will enhance the IDE DMA transfer of an IDE hard disk drive.

- **On-Chip Primary PCI IDE**
  These fields allow you to enable or disable the primary and secondary IDE controller, select Disabled if you want to add a Different hard drive controller.

- **IDE Primary Master PIO and IDE Primary Slave PIO**
  PIO means Programmed Input/Output Rather than have the BIOS issue a series of commands to effect a transfer to or from the disk drive, PIO allows the BIOS to tell the controller what it wants and then let the controller and the CPU perform the complete task by themselves. Your system supports five modes, 0 (default) to 4, which primarily differ in timing. When Auto is selected the BIOS will select the best available mode after checking your drive.

  Auto The BIOS will automatically set the system according to your hard disk timing.

  Mode 0-4 You can select a mode that matches your hard disk timing. Caution : Do not use the wrong setting or you will have drive errors.

- **IDE Primary Master UDMA and IDE Primary Slave UDMA**
  These fields allow you to set the Ultra DMA in use. When Auto is selected the BIOS will select the best available option after checking your hard drive or CD ROM.

  Auto The BIOS will automatically detect the settings for You.

  Disabled The BIOS will not detect these categories.

- **On-Chip Serial ATA**

  Disabled Disables the onboard SATA

Auto	The system will detect the existing SATA and IDE drives then automatically se them To the available Master / Slave Mode.
Combined Mode	This option allows you to use both IDE and SATA drives; allowing a maximum od 4 drives-1 IDE Master; 1 IDE Slave and 2 SATA. You must manually set the SATA and PATA drives mode in the " PATA IDE Mode " and " SATA Port " fields.
Enhanced Mode	This option allows you to use both IDE and SATA drives; allowing a maximum of 6 drives – 1 IDE Master, 1 IDE Slave and 4 SATA.
SATA Only	This option automatically sets the SATA drives to Primary Master mode. Since the SATA drives are in Master mode, you can not set the IDE drive to Master mode.

- **PATA IDE Mode**
  This field is used to select the function mode for IDE 1 connector and its relation to the SATA ports,

Primary	IDE 1 serves as Primary Master and Primary Slave channel. SATA 2 and SATA 4 serves as Secondary Master and Secondary Slave channel. SATA 1 and SATA 3 are disabled.
Secondary	IDE 1 serves as Secondary Master and Secondary Slave channel. SATA 1 and SATA 3 serves as Primary Master and Primary Slave channel. SATA 2 and STATA 4 are disabled.

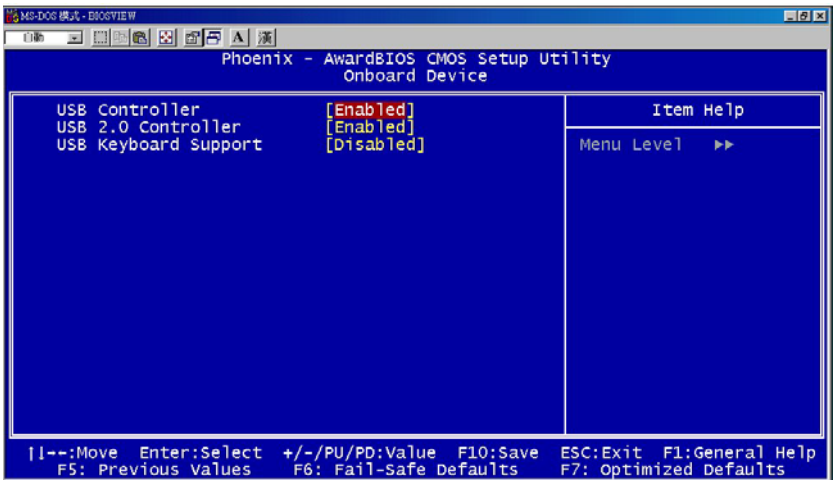
- **SATA Port**
  If the " PATA IDE Mode " field is set to Primary, this field will show" P1, P3 is Secondary; meaning SATA 2 and SATA 4 are Secondary.

  If the " PATA IDE Mode " field is set to Secondary, this field will

show “ P0, P2 is Primary “; meaning SATA 1 and SATA 3 are Primary.

7.5.2 Onboard Device

Move the cursor to this field and press <Enter>. The following Screen will be appeared.


Phoenix - AwardBIOS CMOS Setup Utility
Onboard Device
USB Controller [Enabled]
USB 2.0 Controller [Enabled]
USB Keyboard Support [Disabled]
Item Help
Menu Level ▸▸
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **USB Controller**

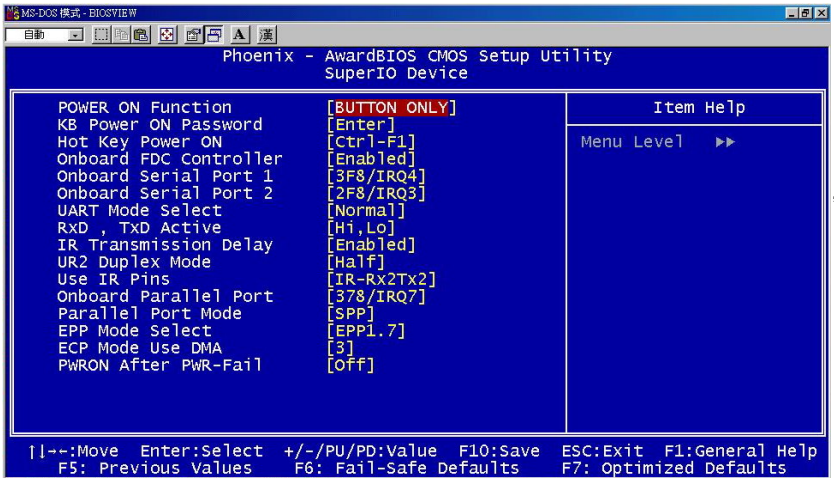
  Enabled Enables the onboard USB
  Disabled Disables the onboard USB

- **USB 2.0 Controller**
  Select Enabled if your system contains a Universal Serial Bus V2.0 (USB2.0) controller and you have USB2.0 peripherals. The choice: Enabled, Disabled.

- **USB Keyboard Support**
  Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard.

7.5.3 Super IO Device

Move the cursor to this field and press < Enter >. The following screen will be appeared.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
SuperIO Device
POWER ON Function [BUTTON ONLY]
KB Power ON Password [Enter]
Hot Key Power ON [Ctrl-F1]
Onboard FDC Controller [Enabled]
Onboard Serial Port 1 [3F8/IRQ4]
Onboard Serial Port 2 [2F8/IRQ3]
UART Mode Select [Normal]
RxD , TxD Active [Hi,Lo]
IR Transmission Delay [Enabled]
UR2 Duplex Mode [Half]
Use IR Pins [IR-Rx2Tx2]
Onboard Parallel Port [378/IRQ7]
Parallel Port Mode [SPP]
EPP Mode Select [EPP1.7]
ECP Mode Use DMA [3]
PWRON After PWR-Fail [Off]
Item Help
Menu Level ▶▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **Power On Function**
  This field allows you to use the keyboard or PS/2 mouse to power on the system.

Button only	Default setting. Uses the power button to power on the system.
Password	When this option is selected, set the password you would like to use to power on the system in the " KB Power On Password " field.
Hot Key	When this option is selected, select the function key you would like to use the power on the system in the " Hot Key Power On " field.
Mouse Move	When this option is selected, move the mouse to power on the system.

Mouse Click	When this option is selected, click the mouse button to power on the system.
Any Key	Press any key to power on the system.
Keyboard 98	When this option is selected, press the " wake up " key of the windows 98 compatible keyboard to power on the system.

- **KB Power On Password**
  Move the cursor to this field and press < Enter >. Enter your password. You can enter up to 5 characters. Type in exactly the same password to confirm, then press < Enter >.

  The power button will not function once a keyboard password has been set in this field. You must type the correct password to power on the system. If you forgot the password, power off the system and remove the battery.

- **Hot Key Power ON**

  This field is used to select a function key that you would like to use to power on the system.

- **Onboard FDC Controller**

Enabled	Enabled the onboard floppy disk controller.
Disabled	Disabled the onboard floppy disk controller.

- **UART Moe Select**
  This field is used to select the type of IrDA standard supported by your IrDA device. For better transmission of data, your IrDA peripheral device must be within a 30 degree angle and within a distance of I metter.

- **UR2 Duplex Mode**

Half	Data is completely transmitted before receiving Data
Full	Transmits and receives data simultaneously.

- **Onboard Parallel Port**
  378/IRQ7, 3BC/IRQ7, 278/IRQ5 Select the I/O address and IRQ for the onboard parallel port.

  Disabled Disables the onboard parallel port.

- **Parallel Port Mode**

  The options are SPP, EPP, ECP and ECP+EPP. These apply to a Standard specification and will depend on the type and speed of You device. Refer to your peripherals manual for the best option.

  SPP – Allows normal speed operation but in one direction only.

  ECP (Extended Capabilities Port) – Allow parallel port to operate in bidirectional mode and at a speed faster then the normal mode's data transfer rate.

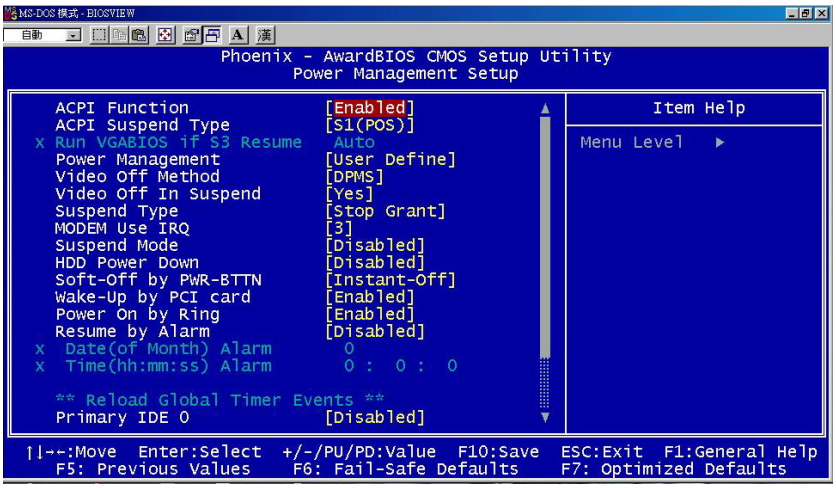
  EPP (Enhanced Parallel Port) – Allows bidirectional parallel port operation at maximum speed.

- **ECP mode Use DMA**
  This is used to slect a DMA channel of the parallel port.

- **PWRON After PWR-Fail**
  This item allows you to select if you want to power on the system after power failure.

7.6 Power Management Setup

The Power Management Setup allows you to save energy of your system effectively. It will shut down the hard disk and turn OFF video display after a period of inactivity.


Phoenix - AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI Function [Enabled]
ACPI Suspend Type [S1(POS)]
x Run VGABIOS if S3 Resume Auto
Power Management [User Define]
Video Off Method [DPMS]
Video Off In Suspend [Yes]
Suspend Type [Stop Grant]
MODEM Use IRQ [3]
Suspend Mode [Disabled]
HDD Power Down [Disabled]
Soft-Off by PWR-BTTN [Instant-Off]
Wake-Up by PCI card [Enabled]
Power On by Ring [Enabled]
Resume by Alarm [Disabled]
x Date(of Month) Alarm 0
x Time(hh:mm:ss) Alarm 0 : 0 : 0
** Reload Global Timer Events **
Primary IDE 0 [Disabled]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **ACPI Function**
  This function ahould be enabled only in operating systems that support ACPI. Currently, only Windows 2000/ME/XP supports this function. If you want to use the Suspend to RAM function, Make sure this field is enabled then select " S3(STR)" in the ACPI Suspend Type " field.

- **ACPI Susppend Type**
  This field is used to select the type of Suspend mode.

S1(POS)	Enables the Power On Suspend function.
S3(STR)	Enables the Suspend to RAM function.

- **Power Management**
  This field allows you select the type(or degree) of power saving by changing the length of idle time that elapses before the Suspend mode and HDD Power Down fields are activated.

Min Saving	Minimum power saving time for the Suspend Mode(1 hour) and HDD Power Down (15 min.)

Max Saving Maximum power saving time for the Suspend Mode and HDD Power Down =1 min.

User Define Allows you to set the power saving time in the " Suspend Mode " and " HDD Power Down " fields.

- **Video Off Method**
  This determines the manner in which the monitor is blqnked.

  V/H SYNC + Blank This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

  Blank Screen This option only writes blanks to video buffer.

  DPMS Inititalizes display power management Signaling. Use this option if your video board supports it.

- **Video Off In Suspend**
  This field is used to activate the video off feature when the system enters the Suspend mode. The options are Yes or No.
- **Suspend Type**
  The options are Stop Grant and PwrON Suspend.
- **MODEM Use IRQ**
  This field is used to set an IRQ channel for the modem installed in your system.
- **Suspend Mode**
  This is selectable only when the Power Management field is set to User Define. When the system enters the Suspend mode according to the power saving time selected, the CPU and onboard peripherals will be shut off.
- **HDD Power Down**
  When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.
- **Soft-Off by PWR-BTTN**

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has “hung.” The choice: Delay 4 Sec, Instant-Off.

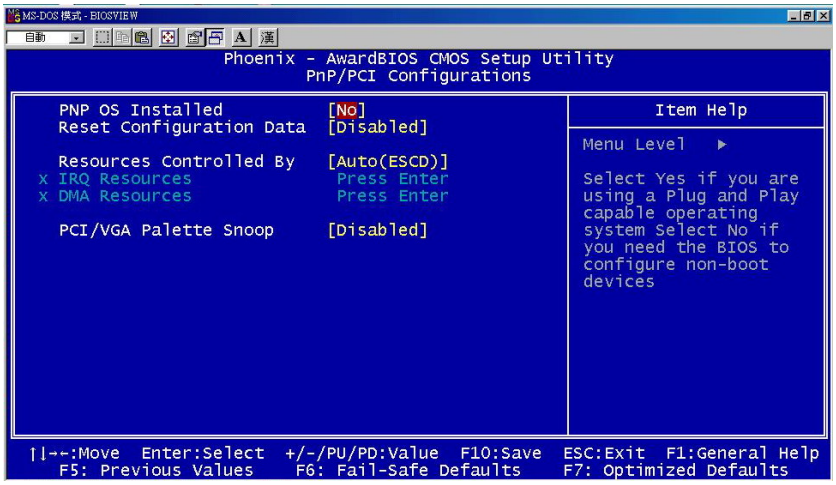
- **Wake-Up By PCI card**
  If this item is enable, it allows the system to resume from a software power down or power saving mode whenever there is an Incoming call to an installed fax/modem. This function needs to be supported by the relevant hardware and software.

- **Power On by Ring**
  An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.
  The choice: Enabled, Disabled.

- **Resume by Alarm**
  When *Enabled,* your can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.
  The choice: Enabled, Disabled.

7.7 PNP/PCI Configuration

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.


MS-DOS 模式 - BIOSVIEW
Phoenix - AwardBIOS CMOS Setup Utility
PnP/PCI Configurations
PNP OS Installed [No]
Reset Configuration Data [Disabled]
Resources Controlled By [Auto(ESCD)]
x IRQ Resources Press Enter
x DMA Resources Press Enter
PCI/VGA Palette Snoop [Disabled]
Item Help
Menu Level ▶
Select Yes if you are using a Plug and Play capable operating system Select No if you need the BIOS to configure non-boot devices
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **Reset Configuration Data**

  Enabled The BIOS will reset the Extended System Configuration Data (ESCD) once automatically. It will then recreate a new set of configuration data.

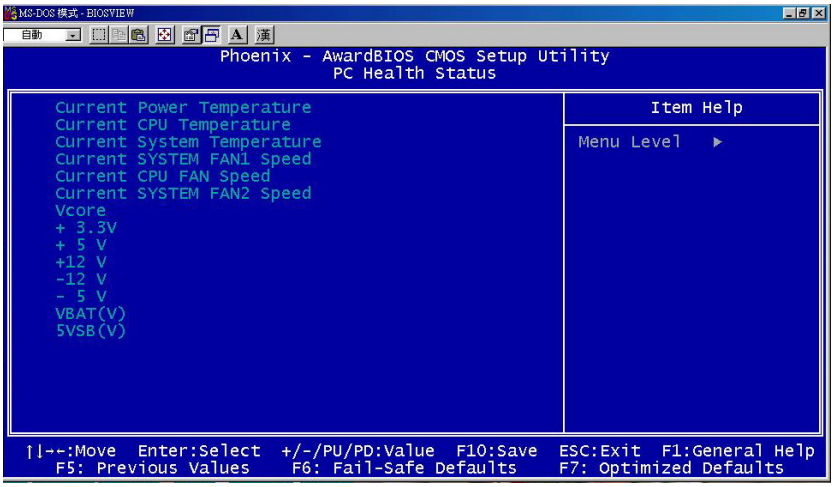
  Disabled The BIOS will not reset the configurationb data.

- **Resource controlled by**
  The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®98. The options available are Auto and Manual.

- **IRQ Resources**
  When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.
  .

7.8 PC Health Status

This option configures the PCI bus system. All PCI bus systems on the system use INT#, thus all installed PCI cards must be set to this value.

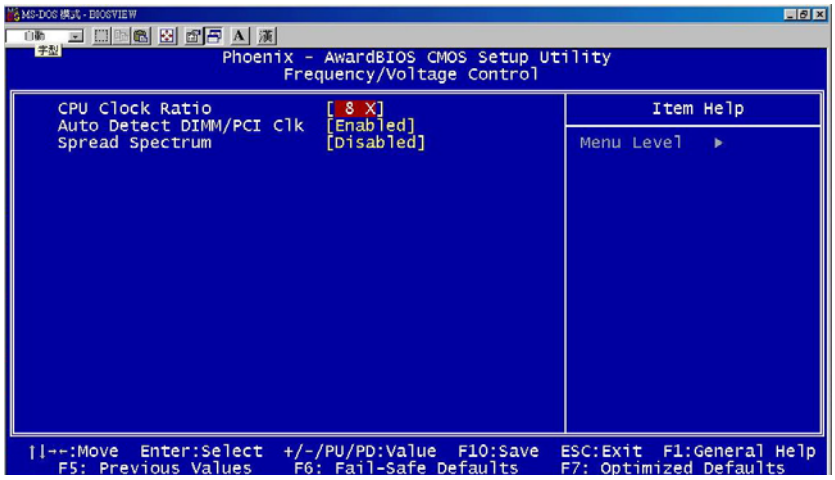


- **Current Power Temperature.**
  The current system power will be detected automatically.
- **Current CPU Temperature.**
  The current system CPU temperature will be automatically detected by the system.
- **Current SYSTEM Temperature.**
  Show you the current system1 temperature.
- **Current SYSTEM FAN1 Speed**
  Show you the current system fan1 temperature.
- **Current CPU FAN Speed**
  These optional and read-only fields show the current speeds in RPM (revolution per minute) for the CPU fan and chassis fan as monitored by the hardware monitoring IC.
  RPM(Revolutions Per Minute)
- **Current SYSTEM FAN2 Speed.**

Show you the current system fan1 temperature.

- **+3.3V/+5V/+12V/-12V/-5V/VBAT(V)/5VSB**
  Show you the voltage of +3.3V/+5V/+12V/-12V/-5V.

7.9 Frequency/Voltage Control


Phoenix - AwardBIOS CMOS Setup Utility
Frequency/Voltage Control
CPU Clock Ratio [8 X]
Auto Detect DIMM/PCI Clk [Enabled]
Spread Spectrum [Disabled]
Item Help
Menu Level ▶
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

- **CPU Clock Ratio**
  This field is used to select the CPU's frequency

- **Auto Detect PCI Clk**
  Leave this field in its default setting. Do not alter this setting unless advised by an engineer or technician.

- **CPU Clock**
  This field procides several options for selecting the external system bus clock of the processor; the available options allow you to adjust the processor's bus clock by 1MHZ increment.

7.10 Load Optimized Defaults

When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N)? N

Pressing “Y” loads the default values that are factory settings for optimal performance system operations

7.11 Supervisor/User Password Setting

You can set either supervisor or user password, or both of then. The differences between are:

Set Supervisor Password: can enter and change the options of the setup menus.

Set User Password: just can only enter but do not have the right to change the options of the setup menus. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

ENTER PASSWORD:

Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable a password, just press <Enter> when you are prompted to enter the password. A message will confirm the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

PASSWORD DISABLED.

When a password has been enabled, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also require

the BIOS to request a password every time your system is rebooted.This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option (see Section 3). If the Security option is set to “System”, the password will be required both at boot and at entry to Setup. If set to “Setup”, prompting only occurs when trying to enter Setup.

7.12 Exit Setting

Save & Exit Setup

Pressing <Enter> on this item asks for confirmation:

Save to CMOS and EXIT (Y/N)? Y

Pressing “Y” stores the selections made in the menus in CMOS – a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

Exit Without Saving

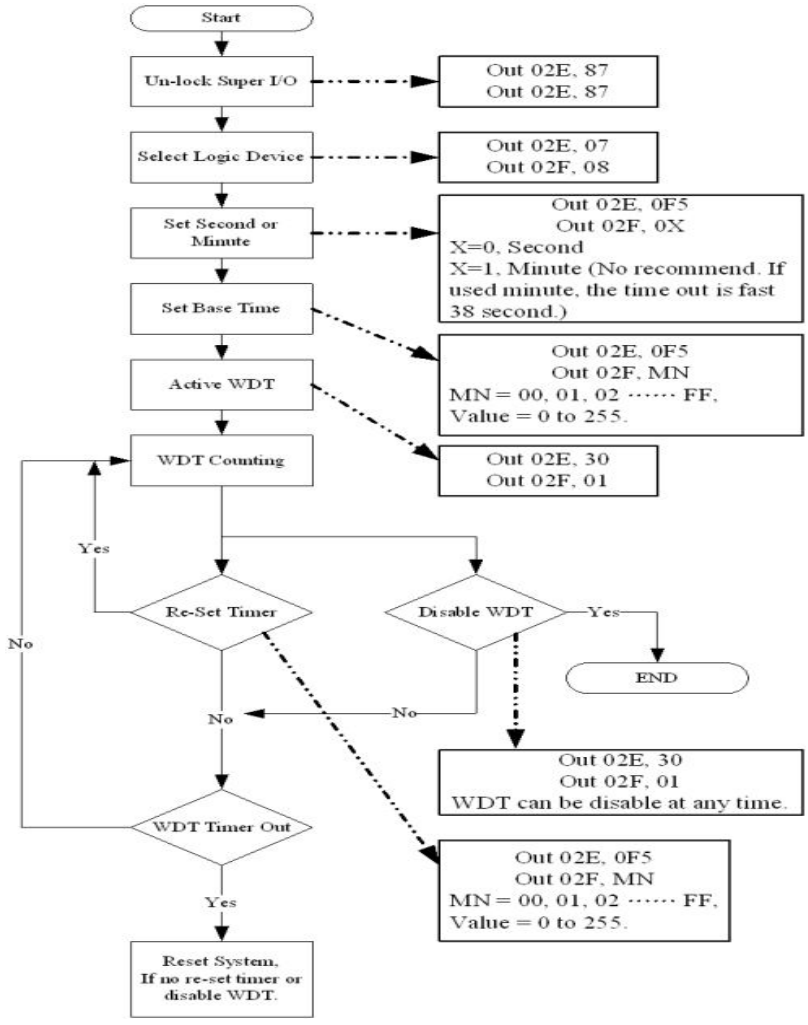
Pressing <Enter> on this item asks for confirmation:

Quit without saving (Y/N)? Y

This allows you to exit Setup without storing in CMOS any change. The previous selections remain in effect. This exits the Setup utility and restarts your compute

A p p e n d i x A Watchdog Timer

Please follow the below WDT process for setup the WDT function.



A p p e n d i x B PCI IRQ Routing

PICMG PCI IRQ Routing

Device	ID	Slot	Int
PCI Slot 0	31	0	BCDA
PCI Slot 1	30	1	CDAB
PCI Slot 2	29	2	DABC
PCI Slot 3	28	3	ABCD

On Board Device IRQ Routing

Device	ID	Slot	Int
PCI-ISA Bridge	22	4	
Mini-PCI 1	26	5	CD